

CLAIMS

What is claimed is:

- 1           1.     An object retention system for securing an object in a rotatable  
2 carousel having an axis of rotation, the system comprising:
  - 3               (a)     a latching hub mounted within the rotatable carousel about  
4 the axis of rotation;
  - 5               (b)     at least one object within the rotatable carousel, each object  
6 having a latch reciprocal configured to mate with the latching hub; and,
  - 7               (c)     at least one retainer adjacent each object, each retainer  
8 configured to maintain contact between one of the latch reciprocals and the  
9 latching hub.
- 1           2.     The system of claim 1 wherein:
  - 2               (a)     the latching hub includes at least one prominence; and
  - 3               (b)     each latch reciprocal has a depression formed therein for  
4 receiving one of the prominences of the latching hub.
- 1           3.     The system of claim 1 wherein:
  - 2               (a)     each latch reciprocal includes a prominence; and
  - 3               (b)     the latching hub has at least one depression formed therein  
4 for receiving the prominence of each latch reciprocal.
- 1           4.     The system of claim 1 wherein each retainer is springable to permit  
2 insertion and removal of each object.
- 1           5.     The system of claim 1 wherein the latching hub is springable to  
2 permit insertion and removal of each object.

1           6.     The system of claim 1 wherein the latching hub is substantially  
2 coextensive with each object.

1           7.     The system of claim 1 wherein each object includes first and  
2 second ends and wherein the latch reciprocal of each object is positioned  
3 centrally between the first and second ends of each object.

1           8.     A method for securing an object in a rotatable carousel having an  
2 axis of rotation, the method comprising:

3                 (a)     mounting a latching hub within the rotatable carousel about  
4 the axis of rotation;

5                 (b)     providing a retainer within the rotatable carousel;

6                 (c)     inserting an object, having a latch reciprocal, into the  
7 rotatable carousel;

8                 (d)     mating the latch reciprocal with the latching hub; and,

9                 (e)     the retainer maintaining contact between the latch reciprocal  
10 and the latching hub.

1           9.     The method of claim 8 further including:

2                 (a)     providing the latching hub with a prominence; and

3                 (b)     forming a depression in the latch reciprocal for receiving the  
4 prominence of the latching hub.

1           10.    The method of claim 8 further including:

2                 (a)     providing each latch reciprocal with a prominence; and

3                 (b)     forming a depression in the latching hub for receiving the  
4 prominence of the latch reciprocal.

1           11.    The method of claim 8 wherein inserting the object includes:

2                 (a)     the object displacing the retainer, permitting the latch

3 reciprocal to partially bypass the latching hub;  
4 (b) the retainer returning to lock the latching hub against the  
5 latch reciprocal.

1 12. The method of claim 8 wherein inserting the object includes:  
2 (a) displacing the latching hub, permitting the latch reciprocal to  
3 partially bypass the latching hub;  
4 (b) the latching hub returning to lock the latching hub against  
5 the latch reciprocal.

1 13. An object retention system for retaining an object on a rotatable  
2 carousel, the system comprising:  
3 (a) a rotatable carousel having an axis of rotation;  
4 (b) a latching hub mounted within the rotatable carousel about  
5 the axis of rotation;  
6 (c) an object within the rotatable carousel and having a latch  
7 reciprocal and a stop, the latch reciprocal configured to mate with the latching  
8 hub; and,  
9 (d) at least one retainer mounted within the carousel adjacent  
10 the stop, each retainer configured to maintain contact between the latch  
11 reciprocal and the latching hub.

1 14. The system of claim 13 wherein:  
2 (a) the latching hub includes a prominence; and  
3 (b) the latch reciprocal has a depression formed therein for  
4 receiving the prominence of the latching hub.

1 15. The system of claim 13 wherein:  
2 (a) the latch reciprocal includes a prominence; and  
3 (b) the latching hub has a depression formed therein for  
4 receiving

5 the prominence of the latch reciprocal.

1 16. The system of claim 13 wherein each retainer is springable to  
2 permit insertion and removal of each object.

1 17. The system of claim 13 wherein the latching hub is springable to  
2 permit insertion and removal of each object.

1 18. The system of claim 13 wherein the latching hub is substantially  
2 coextensive with the object.

1 19. The system of claim 13 wherein the object includes first and  
2 second ends and wherein the latch reciprocal is positioned centrally between the  
3 first and second ends of the object.

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